

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 1. This sheet, which includes Fig. 1-2, replaces the original sheet including Fig. 1-2.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

The Examiner's continued attention to the present application is noted with appreciation.

The Examiner objected to the drawings under 37 CFR §1.83(a) as failing to show every feature of the invention as claimed in claims 5-10 and 16-21. Figure 1 has been accordingly.

The Examiner rejected claims 5-10 and 16-21 under 35 U.S.C. 112. As is known to those of ordinary skill in the art, in order to control an array of lenslets, such that they may be made to act as described in claims of Applicant's invention, a computer or computer-like device must be used with appropriate software. Since this is common understanding, it was only briefly mentioned in the original description (page 7, LL 25 and 26 and page 8, LL 8 and 9). This computer-like device and associated software is implied in statements such as: "the SLM is programmed" (page 7, L 23); "lenslet arrays are successively scanned" (page 9, L 28); and "at each scan of the lenslet array, known algorithms are applied to compute" (page 7, L 25). Such a computer like apparatus and its related software is what forms the basis for each of the means described in claims 5-10 and 16-21. The specification and Fig. 1 have been amended to more clearly point this out.

The Examiner rejected claims 1-10 and 12-21 based on 35 U.S.C. §102(a) as being anticipated by Schwider. In the response to the initial office action, Applicant filed a declaration pursuant to 37 CFR §1.68, the rule regarding use of declarations rather than affidavits. The declaration was filed pursuant to Rule 131, as is clear from its contents.

The Examiner rejected claims 1-10 based on 35 U.S.C. §102(b) as being anticipated by O'Meara et al (hereinafter O'Meara) or Hutchin or Terry et al (hereinafter Terry) or Davis et al (hereinafter Davis). Hutchin discloses the use of two wave front sensors to gather two independent indications of an incoming waveform, thus obtaining more precision. O'Meara teaches a high-speed spatial light modulator. Terry discloses a DNA searching apparatus which uses a spatial light modulator. Davis teaches an optical processing system wherein an incoming wave is separated into parts such that the waveform error portion of the beam can be used as input into the system to correct for this error. Neither O'Meara, nor Hutchin, nor Terry, nor Davis, nor any combination thereof teaches the use of a waveform sensor which comprises

a sub-array of pixels to control the illumination intensity of individual lenslets of the lenslet array. Claim 1 has been amended to better describe Applicant's invention in that it is an adaptive dynamic wavefront sensor which uses a sub-array of pixels to control the illumination of individual lenslets of the lenslet array.

The Examiner rejected claim 11 as being anticipated by Chen et al (hereinafter Chen). Chen discloses a storage device which uses light as the storage medium. Chen does not disclose the use of a sub-array of pixels to control the illumination intensity of individual lenslets of the lenslet array. Claim 11 has been amended to more accurately describe Applicant's invention in that it uses a sub-array of pixels to control the illumination intensity of individual lenslets in a lenslet array

The Examiner rejected claims 12-21 under 35 U.S.C. § 103(a) as being unpatentable over Schwider or O'Meara or Hutchin or Terry or Davis. As disclosed above, Applicant's invention was made prior to that of Schwider, and as such, the teachings of Schwider would not have enabled one skilled in the art to have created Applicant's invention. Neither O'Meara, nor Hutchin, nor Terry, nor Davis, nor any combination thereof disclose that a sub-array of pixels can be made to control the illumination of a lenslet of the lenslet array. None of the patents cited by the Examiner disclose or suggest that any benefit could be obtained or is even possible with such a sub-array. Claim 12 has been amended to better describe Applicant's invention, in that it uses a sub-array of pixels to control the illumination of an individual lenslet of the lenslet array.

The Examiner rejected claim 22 under 35 U.S.C. 103(a) as being unpatentable over Chen et al (hereinafter Chen). Chen does not disclose the use of a sub-array of pixels to control the illumination of an individual lenslet of the lenslet array, nor would the use of such a sub-array become obvious to one skilled in the art upon viewing Chen. Claim 22 has been amended to better describe Applicant's invention in that it uses a sub-array of pixels to control the illumination of an individual lenslet of the lenslet array.

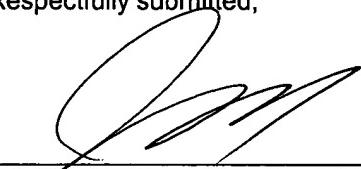
In view of the above amendments and remarks, it is respectfully submitted that all grounds of rejection and objection have been avoided and/or traversed. It is believed that the case is now in condition for allowance and same is respectfully requested.

If any issues remain, or if the Examiner believes that prosecution of this application might be expedited by discussion of the issues, the Examiner is cordially invited to telephone the undersigned attorney for Applicant at the telephone number listed below.

Being filed herewith is a Petition for Extension of Time to August 5, 2003, with the appropriate fee. Authorization is given to charge payment of any additional fees required, or credit any overpayment, to Deposit Acct. 13-4213. A duplicate of this paper is enclosed for accounting purposes.

Respectfully submitted,

By:


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